NOTES ON SOME NEW ZEALAND FLAMMULINA, WITH THE DESCRIPTION OF F. PONSONBYI, N.SP.

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1. Flammulina (Phenacohelix) pilula (Reeve).

Helix pilula, Reeve: Conch. Icon., sp. 809 (1852).

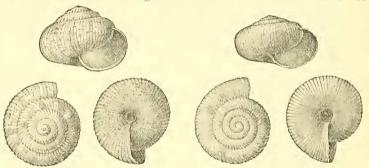
Helix iota, Pfeiffer: Mon. Hel. Viv., vol. iii (1853), p. 69; Proc. Zool. Soc., 1852 (1854), p. 57.

Helix (Charopa) iota (Pfr.): Hector, Cat. Land Moll. New Zealand, 1873, p. viii.

Patula iota (Pfr.): Hutton, Man. New Zealand Moll., 1880. p. 6. Charopa (Thalassia) iota (Pfr.): Tryon, Man. Conch., ser. 11, vol. ii, p. 212, pl. lxii, fig. 43 (copy of Reeve).

Phenacohelix granum (Pfr.): Hedley & Suter [non Pfr.], Proc. Linn. Soc. New South Wales, ser. 11, vol. vii, p. 642.

To Mr. E. A. Smith I am indebted for the following additions to the diagnosis of the species, as observed on the type-specimen, drawings of which, kindly sent by Mr. J. H. Ponsonby, are here reproduced:— "Protoconch, one and a half whorls, minutely spirally striated, no riblets. Nine riblets or eight furrows to a millimetre. The entire



Flammulina pilula (Reeve).

Flammulina Ponsonbyi, n.sp.

surface between the riblets, as seen under an inch objective, is very minutely decussated. In some lights the longitudinal striæ are more noticeable, and *vice verså*. The ribs are slender, subequidistant, and of equal size. Diam. maj. 3·5, min. 3·25 mm.; alt. 2·5 mm."

On examining the specimens in my collection, I found them to agree in the characters pointed out by Mr. E. A. Smith. The number of riblets, of course, is slightly variable. In most specimens I found them to be 9, in some 8, and in one 7 only, per millimetre. The umbilieus is sometimes a little narrower than in the type, but always perfectly open. In adult specimens the diameter is 4, whilst the altitude varies from 2.5 to 3 mm.

Hab.—North Island:—Whangarei; Mt. Wellington Lava Fields, near Auckland; Hunua Range; Wanganui; Waimarama; Forty Mile Bush. Stewart Island:—Halfmoon Bay.

In the nearly allied *F. chordata*, Pfr., I found the same microscopical structure as in *F. pilala*, but the riblets are stonter, cord-like, still less equidistant, from 6 to 8 per millimetre, never more. The very narrow perforation is partly or entirely covered by the columellar reflection. Diam. 4, alt. 3 mm.

## 2. Flammulina (Phenacohelix) Ponsonbyi, n.sp.

Patula pilula (Reeve): Hutton, Trans. New Zealand Inst., vol. xvi, p. 161, pl. ix, fig. K; pl. xi, fig. M (radula and jaw).

Fruticicola pilula (Reeve): Hutton, Trans. New Zealand Inst., vol. xvi, p. 194.

Phenacohelix pilula (Reeve): Hedley & Suter, Proc. Linn. Soc. New

South Wales, ser. 11, vol. vii, p. 641.

Flammulina (Phenacohelix) pilula (Reeve): Pilsbry, Man. Conch., ser. 11, vol. ix, p. 16, pl. iii, fig. 13 (the spire is usually more depressed than here shown); also pl. ii, figs. 6, 7 (jaw and radula).

Shell small, depressed-globose, moderately umbilicated, obtusely angled at the periphery, pale horny with irregular radiate dashes and spots of rufous on the upper surface, passing over in zigzag lines at the base, sometimes imparting a tessellated appearance to it, and extending to the umbilicus; thin, dull. Whorls 4½, regularly increasing, flatly convex, sculptured with numerous arcuate, subequidistant, thread-like riblets, about 8, rarely 7 or 6, per millimetre. Protoconch with numerous fine, microscopic, spiral striæ, interstices between the riblets microscopically decussated. Suture impressed; spire scarcely elevated. Last whorl obtusely angled above the middle, not descending in front. Aperture oblique, lunate. Peristome thin, sharp, slightly reflexed near the umbilicus, which is quite open, slightly perspective, and about one-fifth of the greatest diameter. Base convex. Diam. maj. 6, min. 5·25 mm.; alt. 3·25 mm.

Hab.—North Island:—Whangarei; Auckland; Mt. Wellington Lava Fields and Hillyer's Creek, near Auckland; Hunua Range; Ohaupo; Mt. Taupiri; Otaki Gorge; Forty Mile Bush; Wanganui;

Napier.

The type, from Mt. Wellington Lava Fields, is in my collection. The specimen figured is in the British Museum (Natural History).

Mr. J. H. Ponsonby, in whose honour the shell is named, was the first to point out that the shell which we in New Zealand took for *F. pilula*, Reeve, did not correspond with the type in the British Museum, and I am greatly indebted to him for his kind assistance in settling the question.

A nearly allied species is *Flammulina* (Allodiscus) Mossi, Murdoch (ante, p. 162), in which, however, the umbilicus is much narrower.

Var. unicolor, Suter.

Phenacohelix pilula (Reeve) var. unicolor, Suter: Trans. New Zealand Inst., vol. xxvi (1894), p. 134. Hab.—North Island; Mt. Taupiri.